#### PROJECT DESCRIPTION

#### I. GENERAL

This project involves the modification of existing Traffic Control Signals with street lighting and interconnect at the intersections of: US 40 / Hillcrest Drive, US 40 / Willowdale Road, US 40 / McCain Drive and US 40 / Grove Hill Road in Frederick County. US 40 is assumed to run an east-west direction.

#### II. INTERSECTION OPERATION

The phasing operation at each of the four intersections shall not be changed. The existing full-actuated eight-phase controller and NEMA cabinet shall be utilized at each of the four locations.

#### US 40 / Hillcrest Drive

1. The existing pedestrian signals across the east leg of US 40 shall be replaced with countdown pedestrian signal heads.

#### US 40 / Willowdale Road

1. The existing pedestrian signals across the west leg of US 40 shall be replaced with countdown pedestrian signal heads.

### US 40 / McCain Drive

1. The existing pedestrian signals across the west leg of US 40 shall be replaced with countdown pedestrian signal heads.

#### US 40 / Grove Hill Road

The existing pedestrian signals across the west leg of US 40 shall be replaced with countdown pedestrian signal heads.

#### III. SPECIAL NOTES

- 1. The Contractor shall be responsible for terminating all signal cables. excluding interconnect, to the appropriate terminals and shall properly label each cable.
- 2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.
- 3. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

## EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

THERE IS NO EQUIPMENT TO BE SUPPLIED BY THE SHA.

# B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

| ITEM<br>NO. | DESCRIPTION  | QUANTITY |      |   |
|-------------|--|----------|------|---|
| . 1001      | Maintenance of traffic per assignment,   | 1        | EA   | The contact persons for District #7 are as follows:   |
| -6004       | 4" concrete sidewalk.  | 25       | S.F. | Mr. John Concannon<br>Assistant District Engineer - Traffic<br>Phone: (310) 624-8141  |
| 8001        | Furnish and install concrete for signal foundation.  | 2        | C.Y. |   |
| 8013        | Furnish and install breakaway pedestal pole (10′).   | 1        | EA   | Mr. Dave Coyne Assistant District Engineer - Maintenance Phone: (310) 624-8106  Ms Andrea Bend District Engineer - Utility Phone: (301) 624-8110  Mr. Richard L. Daff, Sr. Chief, Traffic Operations Division Phone: (410) 787-7630  Mr. Ed Rodenhizer Signal Shop 410-787-7652 |
| 8014        | Remove and dispose of existing material and equipment per assignment.                                | 1        | EA   |   |
| 8022        | Furnish and install No. 6<br>AWG stranded bare copper<br>ground wire.                                | 25       | L.F. |   |
| 8030        | Furnish and install 2" schedule<br>80 rigid polyvinyl chloride —<br>trenched.                        | 30       | L.F. |   |
| 8045        | Furnish and install electrical handhole.   | 1        | ΕA   |   |
| 8069        | Furnish and install ground rod $-\frac{3}{4}$ $\times$ 10'.  | 1        | EΑ   | Mr. Sonny Bailey<br>Sign Shop<br>410-787-7670   |
| 8077        | Furnish and install electrical cable — 2 conductor (No. 14 AWG).                                     | 295      | L.F. |   |
| 8079        | Furnish and install electrical cable – 5 conductor (No. 14 AWG).                                     | 300      | L.F. |   |
| 8084        | Pedestrian pushbutton and R10-4(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS WEST PATRICK ST".) | 3        | EA   | PHASE CHART   |
| 8128        | a Furnish and install 16" LED countdown pedestrian signal  | 8        | EA   | THERE IS NO CHANGE TO ANY PHASE O   |

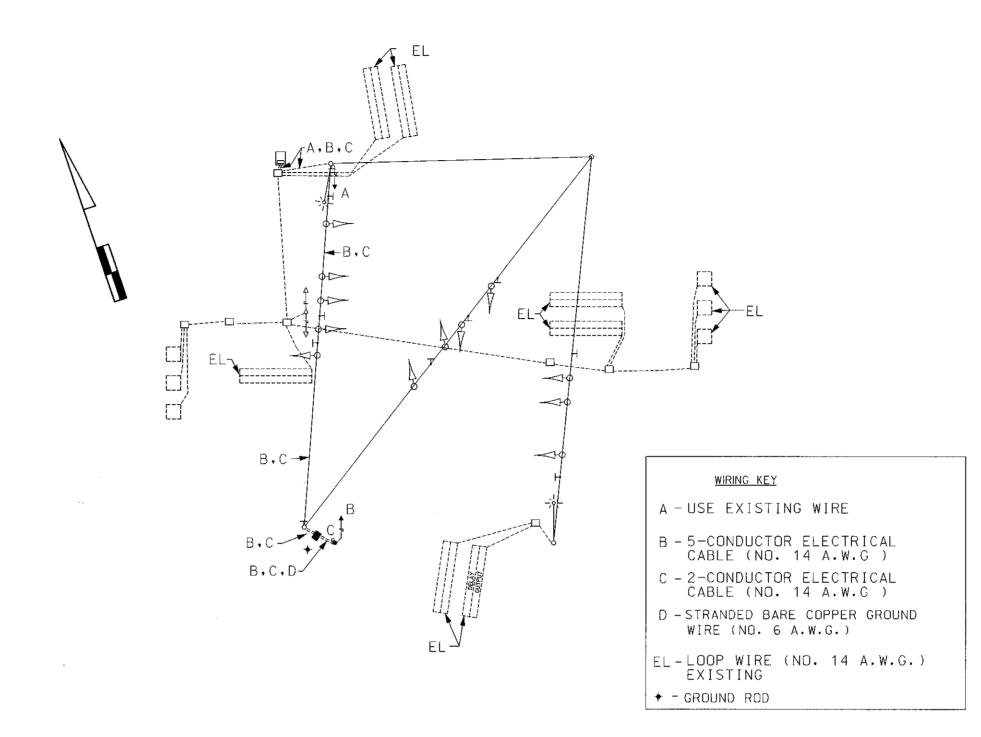
THERE IS NO CHANGE TO ANY PHASE CHART

C. EQUIPMENT TO BE REMOVED

All removed signal materials are to become property of the Contractor.

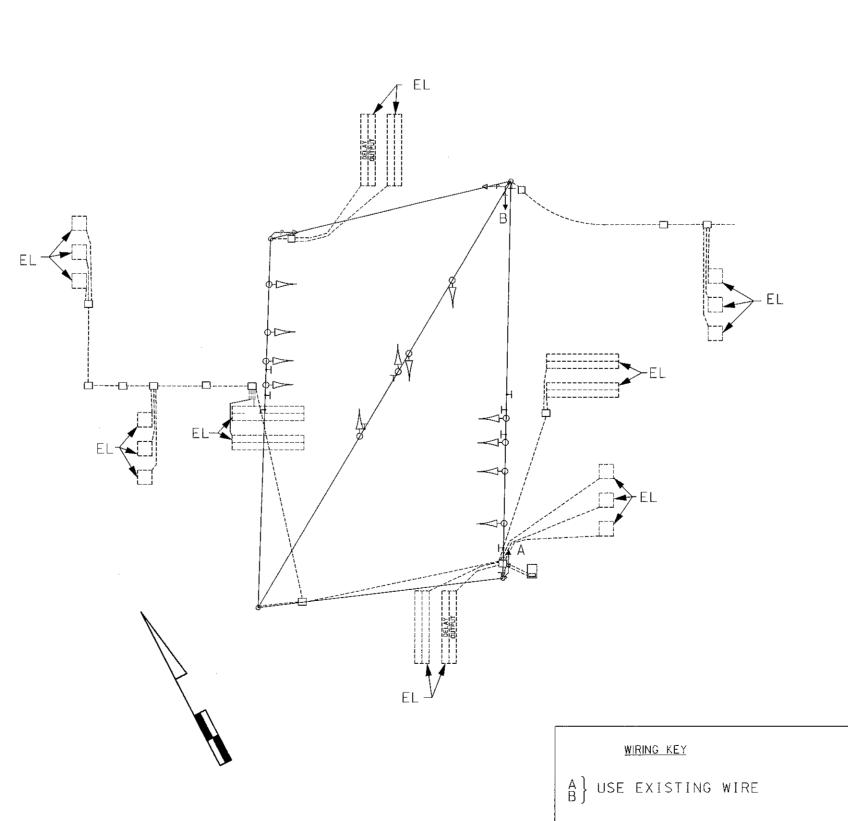
# WIRING DIAGRAM

US 40 / McCAIN DRIVE

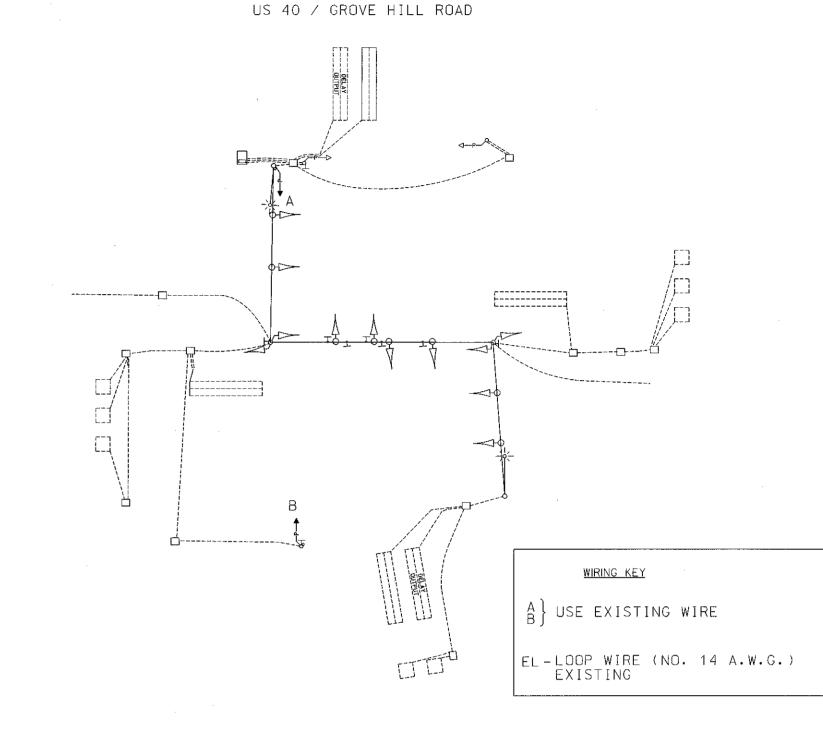


WIRING DIAGRAM

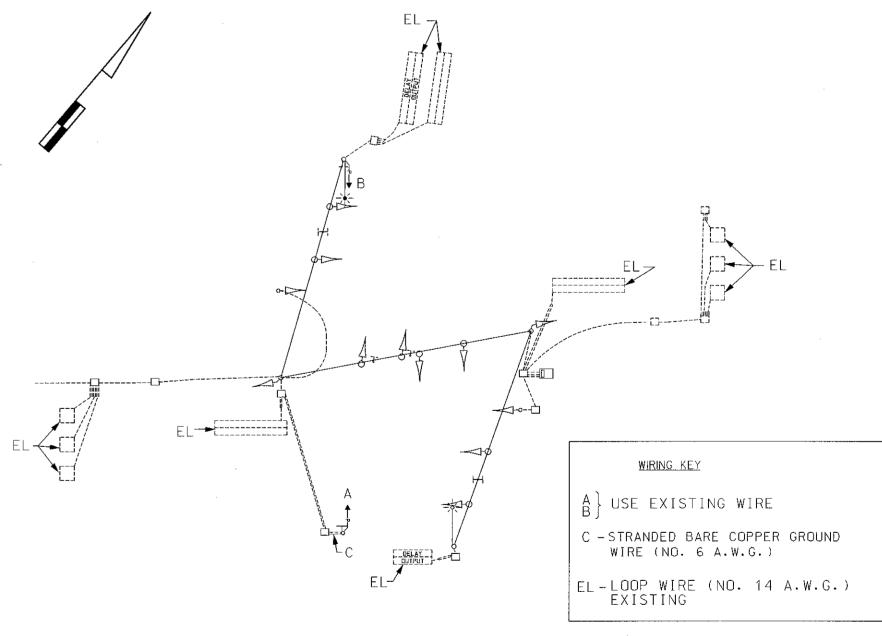
US 40 / HILLCREST DR



WIRING DIAGRAM



<u> Wiring Diagram</u> US 40 / WILLOWDALE RD



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION

MCCAIN DRIVE, GROVE HILL ROAD

F.A.P. NO. TS-3937 GI AT3585185 CHECKED BY: J.W.A. S.H.A. NO. SHEET NO. FREDERICK COUNTY: T.I.M.S. NO. SCALE: NONE D6-16 DATE:

LOG MILE:

11/12/04

STREET TRAFFIC STUDIES, LTD.

400 Crain Hwy.,N.W. Glen Burnie,MD 21061

Ph (410) 590-5500 Fax (410) 590-6637

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EL-LOOP WIRE (NO. 14 A.W.G.)
EXISTING

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